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..ASBESTOS..

A MONTHLY MARKET JOURNAL DEVOTED TO THE INTERESTS OF THE ASBESTOS AND MAGNESIA INDUSTRIES

A. S. ROSSITER, *EDITOR*

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16th FLOOR INQUIRER BUILDING

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C. J. STOVER, *Proprietor*

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Editorial

By C. J. Stover

I often ponder upon the policies of various industries and their effects upon people in them and upon society at large.

Henry Ford has built the greatest single business of all time upon a basis of "come, see and marvel". Everyone is welcome at Ford Plants and every effort is made to explain in detail the many and complicated operations. Mr. Ford and his men have been remarkably frank in stating their views, not only on motors, but on all sorts of subjects.

It is true that many people differ with much of Ford's philosophy but it is probable that no leader of industry has ever lived who enjoys a greater measure of respect and "good will" than is given to Ford.

In our Asbestos Industry I know some who surround their factories, offices and policies with such a thick veil of secrecy that their own personnel is suspicious, fidgetty and, really, afraid.

I wonder which is more conducive to building permanent, profitable relationships with customers and sellers.

On several visits to Europe I have marvelled at the cordial invitations extended to visit plants, examine processes and products and frankly discuss anything from tariffs to wages to capitalization.

By comparison with Europe the U. S. factors are decidedly less inclined to develop industry and social contacts.

Perhaps it is a matter of comparative national age.

PACKINGS — *Why So Many?*

By Howard W. Allen[1]

Whenever an engineer attempts to lay down any hard and fast rules as a general guide in the specification and use of packing he generally runs into trouble.

This is said as a preliminary caution light for the start of this article, for it is the intention here to skate around the edges at least of this very thing which cannot be done satisfactorily and probably should never be attempted.

However, to write anything at all about packings (unless one leaves nothing at all unsaid—a task which would require many, many volumes) one is obliged to deal in generalities—so here is the story.

In the first place, as most of us already know, the various types of packings now being manufactured include asbestos, flax, jute, rubber, duck, rubber and duck, semi- or flexible-metallic, plastic-metallic, and mechanical.

From the ingredients which go into these various general types there are more than 200 separate and distinct packings manufactured exclusive of "tailormade" products which are constantly required to fit special conditions. Small wonder, therefore, that any attempt to prepare a short article telling how packings are made and where they should be used causes some preliminary misgivings.

Let us start out by reducing the problem to its simplest possible terms. This may be done by using as a starting point the rather sweeping statement that there are five general styles of packing which will handle approximately 80% of all packing requirements in the usual power plant.

This takes a large slice out of the field so let us consider it now, and forget for a moment about the remaining 20% of cases where the "other 195" packings are re-

[1]Editor, The Power Specialist. Mr. Allen gives credit to Johns-Manville for much of the information used in this article.

quired for more reasons than anyone, except the packing experts, can account for.

In the first place, one sheet packing which is made of selected long-fibre asbestos and special heat resisting compounds, bonded under pressure into a sheet which is pliable and resilient, will easily handle over 80% of all sheet packing requirements. This packing can be used on flanges and other parallel surfaces against superheated or saturated steam, gas, oil, air, water, ammonia, and some acids, alkalies and other chemicals.

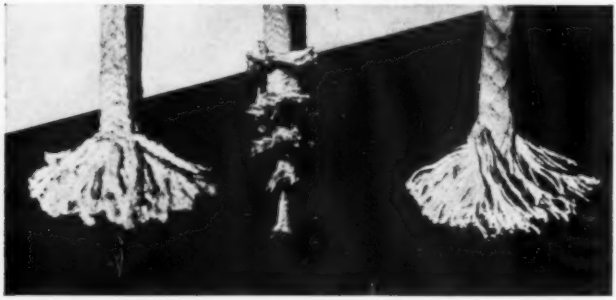

Photo by courtesy of Johns-Manville.

Illustrating the three types of braided asbestos packing construction. Left, square plaited braid; center, Braid-over-Braid; right, Interlocked Braided.

For general packing service on rods and plungers against cold water (either fresh or salt) and brine, braided flax packing, lubricated as the particular case demands, is the thing to use.

A rubber and duck packing, made of first-quality duck, frictioned with a rubber compound and graphited, is an ideal packing for most hot water conditions and ammonia. It is especially suitable for service such as is encountered in boiler feed pumps.

Long-fibre asbestos yarn, twisted, braided, or plaited into coil form, lubricated and graphited, answers at least 80% of all packing requirements for valve stems, recipro-

cating rods with small packing spaces, and centrifugal pumps. Such packing, to be effective, must be made so that it will remain soft and resilient. It is recommended for use against steam, air, water ammonia, oil and chemicals and general conditions where packing without rubber is required.

For service on rods against steam, air, and gas up to 500° F., a packing made with a non-hardening cushion

This packing, made with a non-hardening cushion center covered with a good wearing surface of asbestos cloth is usually recommended for service on rods against steam, air, and gas up to 500 degs. F.

Photo by courtesy of Johns-Manville.

center and covered with a good wearing surface of asbestos cloth woven from tightly twisted asbestos yarn is often recommended. Such construction assures flexibility and resiliency and allows for thoro saturation of the packing with lubricants—a prime prerequisite for practically all rod packing.

So much for these five general service packings which figure so prominently in answering the usual packing requirements.

Now go back for a moment to our earlier statement about the various types of packing that are manufactured and get a brief idea of just what these are like. First let us talk about rod packing. Packing in which asbestos is used constitutes a large percentage of all packing made, especially for the chemical and higher temperature fields. Canadian chrysotile asbestos fibre is generally used except in those packings, which will encounter strong acid conditions. In this case blue African fibre, highly resistant to acid, is employed.

Some forms of asbestos rod packing are made by weav-

ing the asbestos into cloth which is then rubberized and wrapped about a core of non-hardening rubber or other suitable material. Asbestos rod packings are also plaited and braided, either with or without cores and with or without some reinforcing element to give added strength. There are three forms of braided packing. Braid-over-braid construction is made by braiding tubular braids one over the other until the proper size of packing is reached. Square plaited braid is made from a number of yarns or rovings gathered into a braiding strand, eight of these strands then being plaited together to form a packing of square cross-section. Interlocked braided packing is the most recent development in braided construction. As the name indicates, the yarns are interlocked to form a solid, square braid with no soft, heavy plaits to flatten and no jackets to wear thru.

Flax and jute are the simplest forms of rod packing. Either the flax or the jute is braided to the desired size, lubricated and then squared to the proper cross-section on a calender. The flax used is graded as intermediate or long line fibre, the long line fibre being of the highest quality. The best flax comes from Russia and Belgium. With jute the variation in quality is usually slight, altho, in general, it is true that white jute coming from India is superior. In the standard lines of flax and jute packings no structural reinforcement of any kind is used.

Rubber and duck rod packings are made in several ways but only two of these will be considered here. Reinforced cotton fabrics are rubberized and built up into slabs which are cut into strips of the desired size, or, by another method, the rubberized cotton fabric is wound over some form of rubber core. In either case the packing is then shaped in the calender, spiraled on a rod and vulcanized. Ordinarily no lubrication is used on rubber and duck packings. If lubrication is required, graphite is generally employed, this being made to adhere to the outer covering of the packing by means of a light coating of some kind of oil. In general, rubber and duck packings are for use against hot and cold water conditions.

Semi- or flexible-metallic packings are made of vari-

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ous alloy metals, the chief constituent being lead. These packings are usually made by braiding or plaiting the metal, which is in strips, over some form of asbestos core. They are also made by rolling the metal into a foil which is lubricated and then wrapped over a core. The packings are given a surface lubrication, shaped on a calender and spiraled to facilitate handling. Then these semi-metallic packings are designed for use against steam, air, water, oil, etc., on centrifugal rods, in either high or low pressure service with temperatures up to 500° F. For higher temperatures other alloy metals are used, such as copper and aluminum alloys which may be used up to 1000° F.

Plastic-metallic packing is composed of a shredded, soft metal base, usually lead, combined with asbestos, oil and graphite. It is sometimes furnished in a loose state,

This style of packing, made of long-fibre asbestos yarn, twisted or braided into coil form can be sized on the job to handle a majority of requirements for valve stems, reciprocating rods with small packing spaces and centrifugal pumps.

Photo by courtesy of Johns-Manville.

but more often is extruded to the desired size and covered with a loose cotton jacket to hold the soft mass together until it is placed in the stuffing box.

Mechanical packing consists of very accurately machined rings of suitable metals which are held in contact with the rod by means of springs or other mechanical devices—these in turn being held in place in the stuffing box by means of a cast iron cage. Mechanical packing, which requires the utmost precision in manufacture, is

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Canadian Crude
Canadian Spinning Fibre
Canadian Shingle Fibre
Cyprus Asbestos
Italian Crude
Russian Crude
Rhodesian Crude
South African Blue Crude
South African Yellow Crude

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designed primarily for use against steam and gas at normal pressures.

Among sheet packings it has already been mentioned that the most popular, general service packing is made of a compressed rubber and asbestos sheet. Others have wire inserted to give added strength for use where pressures are high. One form of sheet packing which is popular for packing cylinder-head joints and various parts of gas and gasoline engines is made of strong asbestos fabric, interwoven with fine brass wire, impregnated with a special compound to withstand high temperature and pressure, and coated with a red lead compound on one side and graphite on the other, so that a joint may easily be taken apart without destroying the gasket. Plain rubber or cloth inserted rubber (either inserted or placed on one or both sides of the rubber) is used for gaskets where great resiliency is required and where rubber will stand up under the service conditions.

Asbestos-metallic cloth, made of tightly twisted yarn with a fine copper wire insertion, is used to make gaskets where service is severe and added strength is needed to prolong the life of the material.

In general, it may be said that in a rod packing the chief requirements for good service are a material strong enough for the pressures it will encounter, a chemical composition such that it will not deteriorate when exposed to service conditions, a high resistance to wear, and, most significant of all, it must not cause undue power losses or damage to pistons because of friction.

The chief requirements of a sheet packing are sufficient mechanical strength, enough resilience to make a leak-proof joint, and resistance to service conditions which may include everything from warm water at low pressure to exposure to hot oils and chemicals.

Much progress has been made in recent years in the improvement of packings and in establishing some order out of the virtual chaos which has existed in the past in this highly specialized field. The fact that four or five types of standard packings will now handle such a large

part of all packing requirements is concrete evidence of this.

But perhaps the most significant improvements achieved in recent research activities have been in the development of lubricants. In practically all of the above discussion of rod packings some mention was made of lubricants, altho in few cases was it possible to be specific. The reason for this is that such a wide variety of lubricants has had to be developed to meet all conditions of service. These conditions must be known before a lubricant can be safely specified.

The chief lubricant is graphite, used in combination with various types of greases and oils. Because of its composition, graphite will not break down under heat and it is inert in the presence of most chemicals. On steam conditions a high quality mineral base lubricant with graphite is considered standard. For alkalies, a saponified oil which is not affected by the alkali, is required. Other lubricants include various kinds of waxes, castor oil, linseed oil, etc.

It is obviously impossible, as stated in the beginning, to engage in any complete discussion of this complex subject in one short article. What has been said, however, should suffice to convince most readers that the problem of selecting the proper packing is a highly specialized and important one. When there is any doubt it is always wise and usually economical in the long run to call for the advice of a packing specialist.

Asbestos, Resin and Rubber

By R. L. Fine

A triplicate combination embracing asbestos, resin and rubber, is being used for the manufacturing of brake linings, clutch facings, and similar products, with the new compound made possible by processes introduced by both the Bakelite Corporation and General Plastics, Inc.

In the Bakelite process, a product of greatly increased heat resistance is attained by producing sections consisting of asbestos filled material with a combination of two parts rubber and one part Bakelite resin. The thermoplasticity

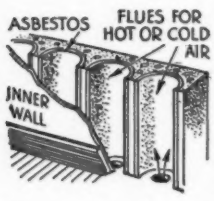
at high temperatures, such as 400 deg. F., is stated to have been largely minimized, with an improvement in wear resistance noted at these high temperatures.

General Plastics has developed a special resin to be used somewhat along the same lines, i. e., Durez Resin 175. The resin, where large amounts are to be used, is incorporated after the rubber and asbestos have been compounded. It is added on fairly cool mills to prevent the possible setting up of the resin resulting in an insoluble inert compound. For certain purposes the Durez resin is incorporated in some solution and the dispersion handled in cement form. Pitting of the surface is eliminated when this resin is employed, the finished product being also more resistant to water, air and oil.

Asbestos Pipes Used In Walls

Reprinted from a Scientific Magazine
the name of which we were unable to learn.

Walls act as radiators in a concrete house erected recently in Red Bluff, Calif., as an example of a new method of building construction. Warm air from a special type of heating plant rises thru half-round asbestos flues embedded in the walls, and the heat is radiated from the inner wall surfaces into the rooms.



A space under the floor acts as a supply reservoir for the warm air, which may also be discharged directly into rooms thru grilles. Sprays of water in the heating plant keep the air at the correct humidity, and in summer they chill the air that is blown thru the flue system to cool the house.

The new method of construction is said to be very economical, both in first cost and in the operation of the heating and air-conditioning plant. The inventor, who constructed the experimental house claims that in addition to its novel heating plant the new method of construction is such that it is less likely to be damaged by the action of fire, earthquake, moisture and termites.

MARKET CONDITIONS

General Business.

According to various comments, the second quarter of 1936 will see much improvement in business. The first quarter, as everyone can imagine, was hampered first by the extremely severe winter and then by the various destructive floods. Our space is not equal to discussing the effects which these two factors will exert upon the general business situation, but we must be content with the statement made in the National City Bank letter for April 1936, which is "With due consideration of the difficulties, the view that the Spring season will be the best in six years is prevalent."

Asbestos. Raw Material.

The demand for raw asbestos continues to be fair and for some grades, particularly the Shingle Fibres, considerable increases are noted over the same period for last year. Optimism continues and Canadian Mines expect that the United States market, which has been hesitant during the past few weeks, will maintain its present improved tone.

With the early opening of navigation on the St. Lawrence, overseas shipments will be resumed in substantial quantities. Prices remain firm.

Asbestos. Manufactured Goods.

Textiles. Demand is fairly good in this line but productive capacity and number of factors so far exceeds any oridinary requirement that prices are pretty well shot. With firm raw material costs and surely no sign of *lower* labor costs, either there is a deep, dark mystery in this business or sellers at present prices are piling up losses. On a recent public opening the prices quoted are, apparently, rather low.

Brake Lining. This market seems to be in a very optimistic frame of mind; automobile production will undoubtedly increase with good weather coming, and touring likewise—all of which means increased use of brake lining.

Insulation. High Pressure. Slight decline in shipments is noted for February. An increasing amount of

public and private work is being planned, however, and the total output for the next few months should be reasonably good. Prices are firm.

Insulation. Low Pressure. Both this market and the one in paper and millboard (the two run closely parallel) finds demand still rather light. This is partly seasonal and partly due to the heavy stocks put in by handlers of these materials along toward the end of the year which have not yet been entirely unloaded. Prices are firm.

Asbestos Cement Products. Conditions in the asbestos-cement products industry continue about the same as previously reported. Sales are considerably in advance of last year due largely to the steady increase in the production and sales of siding shingles, and increased building of small homes. Prices remain firm.

The demand for industrial products such as corrugated and flat sheets is also satisfactory.

One of our English correspondents makes the following comments on the market in that country.

The Asbestos Industry in this country (England) is slowly recovering to a more normal condition corresponding to the improvement in the staple industries of engineering, shipbuilding, etc. Insulation work is on the up-grade, following new constructional work in many directions. The Government's increased shipbuilding program, resulting from the present international unrest, has given an impetus to demands for lagging work, to say nothing of the developments in merchant shipping generally. The famous Cunarder, the "Queen Mary," launched on March 24th, provided, for instance, large contracts for lagging work.

Electric Arc Welding, involving the use of asbestos yarn as a covering for welding rods, is also finding increasing favor for high class welding work.

The brake lining market remains active and the output of cars, private and commercial, shows an ever-increasing tendency. Brake Lining prices, however are keenly cut and the demands for various types of lining, non-metallic and metallic, indicate intelligent and discriminating buying from the car manufacturers and users.

Sales of raw asbestos, white, blue and amosite, also reflect the fact that manufacturers in this country and abroad are more heavily engaged than last year. This increased activity is reflected in the market quotation for the shares in Turner & Newall Ltd., the largest asbestos manufacturers in this country. These shares now stand round about 78/- as against a lowest figure of 51/6d. in 1935. This rise is probably mainly due to the larger building construction which continues, as for several years past, with no visible sign of abatement, entailing heavy demands for asbestos-cement products.

These comments are all sent us by men closely in touch with the various markets and we feel certain are pretty close to fact. Opinions and comments on asbestos markets are always welcomed.

A Definition Of Asbestos

In a questions and answers column conducted by Fire Engineering the definition of asbestos is given as: "A fibrous mineral somewhat resembling flax, and having great fire resisting properties."

While this is not a bad definition we believe a great deal better one might be found and, used consistently by the whole Industry when sending reading material on the subject of asbestos to newspapers, magazines or in issuing advertising literature on asbestos or asbestos products.

To this end will all our readers devote some thought to this subject and send us their ideas of what a proper, comprehensive and accurate definition of asbestos is.

We particularly ask that research men, chemists, and other technicians in the Industry send in their definitions.

Then we will publish them all and perhaps put it to vote as to which one is the best to use.

It is, we believe, desirable to have a definition which can be understood by the ordinary reader of newspapers and magazines, and perhaps also a more technical definition as well.

This should result in some very interesting ideas and comments and we hope none of our readers will hesitate to send in such definitions. In no case will the names be

published with the definition, or at least not without the sender's specific permission.

While no limit will be placed on the length of the definition, we believe that a fairly brief definition, if comprehensive, is preferable to a very long one.

Asbestos Trade in Germany

(Reprinted from "Foreign Metals and Minerals," a publication by the U. S. Department of Commerce, of issue March 14, 1936)[1]

Hamburg has been for many years the center of German and, according to local experts, European, trade in asbestos. German imports of asbestos, by principal countries of shipment during the past four years follow:

German Imports of Asbestos, 1932-1935

(In metric tons)

Countries	1932	1933	1934	1935
Canada	3,481	5,052	5,848	5,684
Russia	2,222	3,379	10,038	11,913
British South Africa	1,301	3,021	2,946	3,124
United States	250	345	280	380
Finland	221	350	683	434
Australia	36	218	168	41
Great Britain	.....	98	42	23
Austria	.....	56	34	6
British Mediterranean	.....	.....	39	25
Italy	.....	.....	48	166
British East Africa	.....	.....	7	26
Portuguese East Africa	.....	.....	.....	31
Other Countries	71	94	21	32
Totals	7,582*	12,613*	20,154*	21,885*

* When converted into **short** tons these totals are:
1932— 8,358 1934—22,216
1933—13,903 1935—24,124

Since there is no commercial production of asbestos in Germany, and re-exports are negligible, the country's annual consumption is practically identical with net imports, except for fluctuations in the accumulation of stocks, which are usually unimportant. Therefore, the consumption of asbestos may be considered as increasing from 7,582 tons

[1] Information supplied by Consul Lester L. Schnare, Hamburg.

in 1932 to 21,885 in 1935. A steadily increasing demand for asbestos in recent years in Germany has stimulated imports and helped to maintain a firm market. Prices have varied little, being often fixed for 1 year in advance, and contracts are usually made to cover annual deliveries. The industries consuming the product are scattered over northern, middle, western and southern Germany. Hamburg accounts for several large factories manufacturing asbestos products.

While no statistics of asbestos stocks in Germany are available, Hamburg dealers estimate that manufacturers have on hand sufficient supplies to keep their plants running for at least 3 months, owing to excessive, recent importations from Russia before the expiration of old barter permits. For this reason, 1936's imports are expected to be smaller than during 1935. A diversion of trade is also foreseen as the result of several other developments. No agreement has so far been reached with Russia for imports in 1936, and it is the opinion among the trade that imports from that country may materially decrease during the current year. The new trade agreement with the Union of South Africa on the other hand, provides for an increase of one third in asbestos imports from that country to a total value of £20,000. Russian asbestos is reported to be of excellent quality and this fact, and the circumstance that it could be imported under a trade agreement (practically barter) accounts for its favored position. American Canadian, and African (other than the Union) asbestos must be paid for in foreign exchange if private barter agreements cannot be araanged.

Asbestos is classed by German foreign trade authorities as a prime necessity, the importation of which should be facilitated. Hence trade may be carried on with every facility which current German trade regulations provide. Permits to pay for imports with foreign exchange are granted when necessary but trade is naturally easier when the imports can be arranged under official trading agreements or thru private barter. In the latter case, the most favorable ration of 1:1 is always authorized.

Little Lessons In Selling

GO AFTER THE BIG FELLOWS!

By John T. Bartlett

William Marvin was a salesman who, always working hard, possessing selling skill, somehow never ran up imposing volume. He was troubled a good deal—until the Chief made an analysis for him.

"You are spending too much time with the little buyers, Bill," he said positively. "You are getting plenty of orders from this type of customer in your territory, but they don't count up!

"I can see what you are doing. You are spending as much time with a man whose largest conceivable purchase will be small, as you would spend on a big fellow. I imagine the real fact is, Bill, that you feel more comfortable catering to the small fry, and have formed the habit of spending your time with them. You have formed a lot of friendships among them. You know how to handle them to get an order.

"Spend most of your time with the buyers whose orders make up volume. There is the Jenkins account, for an example. If you spent an entire day, made but one call—and got their business—you would have a fine showing.

"Increase the time you spend on the big fellows by 80%—cut down the time you spend with the little fellows by at least 50%; in many cases by 90%. Your sales total will double!"

The plan worked with William Marvin. It will for any salesman who will adopt it.

CONTRACTORS AND DISTRIBUTORS PAGE

INSTALLATIONS OF ASBESTOS PRODUCTS

In your interest, we are planning a series of short descriptions of outstanding jobs—insulation, roofing, acoustics or whatnot.

We propose to obtain the names of Engineers, Architects, General and Sub-Contractors; the outstanding characteristics of the job; the special difficulties overcome in its execution; its purpose in the general and specific scheme of things.

Illustrations will be used if obtainable.

To all contributing either directly to the job or to aiding us in getting the facts together, full credit will be given.

We feel that there will be developed a larger and keener interest among our present readers and a widening usefulness of this publication among Owners, Engineers and Constructors.

You are invited to share and to benefit in this part of our work.

All *you* need do is to point us toward outstanding, interesting installations of the products of this Industry.

From there on we will get the details and carry on to publication.

Here's a fine chance for free, direct and convincing publicity for you and your product or workmanship.

If you do not see the opportunity, and find, later on, that someone has seen and profited by it—well don't blame us.

BUILDING

The construction industry continues to record large gains over the comparative levels of 1935. For February a contract total of $142,050,200, covering all branches of construction, was reported by F. W. Dodge Corporation for the 37 states east of the Rocky Mountains. This was practically 90 percent larger than the total of only $75,047,100 reported for February, 1935. Partly because of the unusually low temperatures and heavy snows the February contract volume was about 30 per cent lower than the total of $204,792,800 registered for January of this year.

Residential building undertaken in the 37 states during February amounted to $31,175,500 as compared with only $16,616,800 for February, 1935 and $37,439,500 for January of this year.

Total construction for the first two months of 1936 amounted to $346,843,000 as against only $174,821,000 for the corresponding two months of 1935 a gain over last year of 98 per cent. For residential building alone the contract volume for the first two months of 1936 totaled $68,615,000 or a gain of 76 per cent over the total of $39,027,000 for the corresponding two months of 1935.

Africa (Rhodesia)

(Statistics published by Rhodesia Chamber of Mines)

	January 1936 Tons (2000 lbs.)	Value		
Bulawayo District				
Nil Desperandum (Afr. Asb. Mng. Co., Ltd.)	356.60	£6,832	19	8
Shabanie (Rho. & Gen. Asb. Corp., Ltd.)	2,943.40	43,010	8	8
Victoria District				
D. S. O. (Mashaba Rho. Asb. Co., Ltd.)	106.25	1,368	2	6
Gath's & King (Rho. & Gen. Asb. Corp., Ltd.)	602.10	9,357	12	10
	4,008.35	£60,569	3	8
January 1935	*3,191.13*	*£40,001*	*11*	*3*

Africa (Union of South)

(Statistics published by Dept. of Mines & Industries of U. of S. A.)

	January 1935 Tons (2000 lbs.)	Value	January 1936 Tons (2000 lbs.)	Value
Transvaal				
Amosite	12.90	£ 110	351.00	£3,546
Chrysotile	1,219.00	10,758	1,593.00	13,377
Cape				
Blue	214.93	3,898	172.74	2,976
	1,446.83	£14,766	2,116.74	£19,899

SUMMARY FOR THE YEAR—UNION OF SOUTH AFRICA

	1934 Tons (2000 lbs.)	1935 Tons (2000 lbs.)		1934 Tons (2000 lbs.)	1935 Tons (2000 lbs.)
January	1,290.70	1,446.83	July	1,596.80	1,741.63
February	2,191.73	2,218.56	August	1,591.02	1,950.02
March	1,760.10	1,830.99	September	974.47	2,286.65
April	861.84	1,857.64	October	1,364.53	2,290.14
May	1,317.54	1,716.44	November	1,598.10	1,717.20
June	1,242.54	1,841.84	December	1,804.51	1,900.28
				£17,593.88	£22,798.22

Total Value for the year: 1934 — £203,033
1935 — £226,771

By Varieties:

	1934 Tons (2000 lbs.)	1934 Value	1935 Tons (2000 lbs.)	1935 Value
Transvaal				
Amosite	3,756.42	£ 37,104	4,683.77	£ 46,170
Chrysotile	11,025.30	114,241	15,619.68	137,903
Blue	1.40	15	74.71	984
Cape				
Blue	2,810.76	51,673	2,420.06	41,714
	17,593.88	£203,033	22,798.22	£226,771

Canada

(Statistics published by Bureau of Mines, Province of Quebec)

	January 1935 Tons (2000 lbs.)	January 1936 Tons (2000 lbs.)
Fibre	10,506	17,016

SUMMARY FOR THE YEAR—CANADA

(Tons — 2000 lbs.)

	1934 Tons	1935 Tons		1934 Tons	1935 Tons
January	8,502	10,506	July	12,042	15,398
February	9,256	11,844	August	15,922	23,119
March	12,629	11,816	September	14,814	20,344
April	10,611	14,702	October	18,391	27,105
May	13,171	18,562	November	20,240	25,528
June	13,719	15,316	December	10,616	15,924
				159,913	210,164

It is interesting to find that each month of 1935 (with the exception of March) shows an increase over the month of the preceding year.

The following gives shipments and sales, average value per ton, etc., of Canadian Asbestos during 1935. This is taken from Preliminary Report on the Mineral Production of Canada during 1935, published by the Dominion Bureau of Statistics.

	1935 Shipments and Sales Tons (2000 lbs.)	Value	Average Value Per Ton
Crude	2,278	$539,558	236.86
Fibres	102,270	4,873,255	47.65
Shorts	105,919	1,641,801	15.50
	210,467	$7,054,614	33.52
Sands, gravel and stone (waste rock only)	3,025	2,053	.68
	213,492	$7,056,667	....

Relation of Production[1] of Various Countries

	1934 Tons (2000 lbs.)	1935 Tons (2000 lbs.)
Canada — All Grades	155,980	210,467
Cyprus	7,592	a
Rhodesia (Africa)	31,213	42,597
Union of South Africa	17,593	22,798
United States of America	5,087	a
Soviet Russia (Exports only)	15,079	27,678
Imports by U. S. A.—from All Sources	120,356	166,778
Production of Blue (Crocidolite) Asbestos	2,811[b]	2,494[b]

a Not available at time of going to press.
b (This is a part of the production of Union of S. Africa given above)

ROCK MINED AND MILLED

(Canada only)

	1934 Tons (2000 lbs.)	1935 Tons (2000 lbs.)
Rock Mined	2,320,750	2,852,118
Rock Milled	1,935,129	2,256,994
Asbestos Produced from this Rock	159,912[2]	210,164[2]

[1]Really Sales and Shipments. No Asbestic Included.
[2]This figure represents asbestos actually produced, not shipments and sales. It has been compiled from figures published each quarter by the Quebec Bureau of Mines. It does not include By-Products.

Note: All above figures have been taken from statistics published by Government Departments of the various countries.

Imports into U. S. A.

(Figures published by U. S. Dept. of Commerce)

Unmanufactured Asbestos

	January 1935 Tons (2240 lbs.)	January 1936 Tons (2240 lbs.)
Africa (Br. S.)	155	393
Canada	7,952	10,211
Cyprus, Malta and Gozo	829	265
Finland	.....	10
Germany	200	....
Italy	4	71
Soviet Russia	..	130
United Kingdom	..	138
	9,140	11,218
Value	*$331,113*	*$484,966*
Tabulation of Crudes and Fibres:		
Crude (Africa—Br. S.)	155	393
Crude (Canada)	125	233
Crude (Italy)	4	3
Crude (Soviet Russia)	..	3
Crude (United Kingdom)	..	138
Mill Fibre (Canada)	3,526	4,557
Mill Fibre (Germany)	200	.....
Mill Fibre (Soviet Russia)	.....	127
Lower Grades (Canada)	4,301	5,421
Lower Grades (Cyprus, Malta & Gozo)	829	265
Lower Grades (Finland)	.....	68
Lower Grades (Italy)	.....	10
	9,140	11,218

Manufactured Asbestos Goods:

	January 1936 Pounds
Austria (Packing Fabric)	2,156
United Kingdom (Shingles)	3,730
United Kingdom (Yarn)	2,002
United Kingdom (Pkg. Fabric)	1,090
United Kingdom (Woven Fabrics)	2,169
	11,147

Total Value — January 1935 — $3,559
Total Value — January 1936 — 3,878

Exports from U. S. A.

(Figures published by U. S. Department of Commerce)

Exports of unmanufactured asbestos during January 1936 amounted to 225 tons, valued at $23,595; compared with 82 tons, valued at $5,865 in January 1935.

Exports of Manufactured Asbestos Goods:

	January 1935		January 1936	
	Pounds	Value	Pounds	Value
Paper, Mlbd. and Rlbd.	114,979	$10,620	124,920	$11,059
Pipe Covering and Cement	170,351	8,956	158,401	7,888
Textiles Yarn and Pkg.	81,172	46,325	100,624	55,265
Brake Lining—				
Molded and Semi-molded	.....	53,015	.....	46,286
Not Molded	112,390[1]	18,975	229,824[1]	27,224
Magnesia and Mfrs. of	152,194	11,371	132,090	10,064
Asbestos Roofing	1,599[2]	5,093	3,860[2]	12,998
Other Manufactures	126,891	12,764	173,600	14,124

[1]Lin. Ft. [2]Sqs.

Exports of Raw Asbestos from Canada

(Figures published by Dominion Bureau of Statistics)

	February 1935		February 1936	
	Tons (2000 lbs.)	Value	Tons (2000 lbs.)	Value
United Kingdom	79	$ 7,130	150	$ 6,900
United States	4,044	185,846	6,068	334,624
Australia	143	7,092	135	6,790
Belgium	30	975	150	9,000
France	.....	.....	40	3,075
Germany	174	16,840	122	17,730
Italy	1	52	.....	.....
Japan	1,198	43,188	2,585	97,337
	5,669	$261,123	9,250	$475,456
Sand and Waste				
United Kingdom	90	2,070	95	1,375
United States	4,091	58,692	7,638	125,834
Belgium	30	660	.....	.....
France	.....	.....	133	2,490
Germany	.....	.....	30	330
Japan	30	390	45	820
	4,241	61,812	7,941	130,849
	9,910	*$322,935*	*17,191*	*$606,305*

Imports and Exports by England.

Imports of Raw Material:

From	February 1935 Tons (2240 lbs.)	Value	February 1936 Tons (2240 lbs.)	Value
Africa (Rhodesia)	534	£10,176	1,368	£33,305
Africa (Union of South)	995	11,726	769	8,711
Australia	31	426	7	375
British India	....	.....	1	6
Canada	201	3,249	176	1,998
Cyprus	45	731	18	80
Finland	15	98	7	43
Italy	1	75	....	....
Netherlands	....	....	29	1,026
Soviet Russia	..	....	221	3,616
U. S. of America	..	....	.....	7
Venezuela	2	53	.....	..
	1,824	£26,534	2,596	£49,167

Exports of Asbestos Manufactures:

	February 1935 Cwts.	Value	February 1936 Cwts.	Value
Irish Free State	1,424	£1,582	3,698	£2,965
British India	2,301	6,747	6,025	7,815
Australia	567	3,963	804	4,040
Other British Countries	11,975	17,705	19,846	22,839
Netherlands	1,190	3,335	984	3,675
Belgium	592	2,860	688	3,561
France	638	2,257	512	2,662
Italy	254	1,275	1	29
Other Foreign Countries	14,386	32,110	7,436	29,020

Exports Raw Asbestos from U. S. S. R.

The following information has been supplied by the U. S. S. R. Industrial Export Corporation:

Total Exports for 1935 ..... 25,109 metric tons (27,678 short tons)

Divided as to Countries:

To Europe	19,593	"	"	(21,597	"	")
To U. S. A.	3,099	"	"	(3,416	"	")
To Japan	2,417	"	"	(2,664	"	")

Divided as to grade:

Crude (Fibre not less than ¾ in.)	55	"	"	(60	"	")
Mill Fibre	24,934	"	"	(27,485	"	")
Shorts and waste	120	"	"	(132	"	")

NEWS OF THE INDUSTRY

Birthdays. During the next thirty days, some of the executives in the Asbestos Industry have birthdays. It is our pleasure this month to extend congratulations and best wishes to the following on their birthdays:

Philip A. Meyer, Treasurer, Sall Mountain Co., New York City, April 16th;

F. C. Edson, President, Asbestos Manufacturing Co., New York City, April 18th;

C. Mosier, Vice Pres. and General Manager, Union Asbestos & Rubber Company, Cicero, Ill., April 18th;

A. D. Simpson, General Manager, Asbestos Erectors, Cincinnati, O., April 19th;

Geo. A. MacLellan, Managing Director, George MacLellan Co., Glasgow, Scotland, April 19th;

Frank T. Hearst, Manager, Kelley Asbestos Products Co., Kansas City, Mo., April 20th.

H. H. Robertson, President, H. H. Robertson Co., Pittsburg, Pa., April 21st;

J. H. Ake, Treasurer. Magnesia-Asbestos Insulation Co., New York City, April 25th;

J. Carroll Johnston, President & Treasurer, Atlas Asbestos Co., North Wales, Pa., April 28th;

John Lotz, Jr., President, Lotz Asbestos Co., Hartford, Conn., April 29th;

Merlin W. Simon, Secretary, Fred Sprinkmann & Son, Milwaukee, Wis., April 30th.

G. A. MacArthur, Secy. & Treas., G. A. MacArthur Co., Minnesota Transfer, Minn., May 6th;

Geo. S. Fabel, President, Southern Asbestos Co., Charlotte, N. C., May 7th;

L. L. Cohen, President, Union Asbestos & Rubber Co., Cicero, Ill., May 7th;

E. F. Jones, President, Jones Brothers Asbestos Co., San Francisco, Cal., May 12th;

F. E. Jones, Vice Pres., Jones Brothers Asbestos Co., San Francisco, Cal., May 12th;

A. M. Ehret, Sr., Chairman of the Board, Ehret Magnesia Mfg. Co., Valley Forge, Penna., May 15th.

Asbestos Corporation Limited. Tenth Annual Report of Asbestos Corporation Limited, has been issued as of February 17th, 1936.

In issuing this report to stockholders, R. W. Steele, President, calls attention to the improvement in the business of the Company during 1935 over preceding years. Volume of sales increased over 1934 by 31.6% in dollar value and 33.6.% in tonnage. This, together with the benefit for the full year of im-

proved mining and milling practice inaugurated during 1934, enabled the Company to earn sufficient to pay on Dec. 31st an interest instalment of 3% on its General Mortgage Income Bonds, leaving 9% still in accrued arrears on that issue. Before paying this interest on the General Mortgage Bonds it was necessary to pay arrears of the Sinking Funds of Underlying Issues, and in the case of Asbestos Corp. of Canada, Ltd., this Sinking Fund was practically sufficient to pay off the entire issue which was accordingly called. The Company was able to do this without having recourse to a bank loan. After interest payments and deduction of $125,000 for depletion and depreciation, there remained a balance of profit on the operations of 1935 of $15,415.45, as compared with a loss in 1934 of $142,846.44. Under the Trust Deed securing the General Mortgage Income Bonds, the Company must redeem annually, commencing in 1933, $250,000 of that issue before any dividend can be paid on the Common Shares. Sufficient earnings have not been available to make these redemptions which at December 31, 1935 were in arrears $732,000.

In accordance with past practice all expenses of development work and plant improvement were charged to operations. Mr. Steele stated that the outlook for 1936 is reasonably encouraging tho conditions in the United States are still unsettled and business in several of the Central European countries still difficult.

Balance sheet figures for the years 1934 and 1935 compare as follows:

ASSETS

	1935	1934
Government Bonds	$139,480	$139,480
Underlying Bonds	1,170	7,699
Inventory	622,087	597,533
Accounts Receivable	201,783	172,788
Cash	22,995	14,017
Trustee Account	12,297	203,130
Def. charges	28,401	28,835
Properties	4,004,588	4,146,096
	$5,032,801	$5,309,581

LIABILITIES

Bank Loans		75,000
Accounts Payable	222,004	190,188
Accrued Liabilities	15,539	5,991
Accrued Interest	9,117	9,329
Due Trustees		179,855
Underlying Bonds	457,879	658,679
Gen. Mortgage Bonds	2,342,000	2,361,000
Def. Liabilities	210,870	141,660
Reserve for Contingencies	100,000	100,000
Capital Stock	1,587,608	1,578,320
Surplus	86,784	9,557
	$5,032,801	$5,309,581

J. G. Ross, Manager, in his report states that the tonnage of fibre produced in 1935 was 17.5% greater than in 1934 and that the average cost per ton of fibre was reduced by 6.9%.

Raybestos Division. Raybestos salesmen, with their battery of movie equipment are now showing the new film "More Safe Miles." The picture opens the way for more successful business relations between the jobber and fleet owner. The Raybestos Heavy Duty Product line-up including Rigid Molded Sheet Stock, A & I Woven Sheet Stock, Brake Blocks and F. W. in Rolls, plus a Jig Saw, make a formidable array that features full coverage with small investment and "More Safe Miles" crystallizes a definite heavy duty merchandising program that points the way to lower per mile cost of truck and bus service.

The Ruberoid Co. Annual Report of The Ruberoid Co. for the year ending December 31, 1935 has been issued as of February 19, 1936. The Consolidated Income Account shows net profits of The Ruberoid Co. for the year 1935, after provision for depreciation and taxes, of $505,746.52, equal to $3.81 per share on the 132,602 shares of common stock, and in addition for The Ruberoid Purchase Corporation (a wholly owned subsidiary) net profits of $18,509.55. This compares with net profits of The Ruberoid Co. of $415,807.44, equal to $3.13 per share, in 1934, and $146,968.63, or $1.11 per share in 1933.

Cash dividends during 1935 totaled $2.50 a share, made up of four quarterly distributions of 25 cents each and an extra dividend of $1.50 toward the close of the year. The Company has no preferred stock and no bonded indebtedness.

Consolidated Statement of Profit and Loss for the Year ending December 31, 1935:

Sales, less returns, discounts and allowances	$11,834,508.55
Cost of goods sold	8,902,373.42
Gross Profit	2,932,135.13
Selling, advertising, administrative and general expenses	2,284,660.31
Trading Profit	647,474.82
Other Income:	
Div. on inv. in foreign sub. company	32,543.78
Interest on marketable securities, etc.	40,205.02
Profit on sale of marketable securities	2,580.04
Miscellaneous other income	33,701.41
	756,505.07
Other Charges, including loss on disposal of machinery and equipment, interest paid, idle plant expense, etc.	152,406.71
Profit before provision for Federal income tax	604,104.36
Deduct—Provision for Federal Income Tax	90,810.00
Profit for the year	513,294.36
Proportion of sub. company profits applicable to minority interest	7,547.84
Profit accrued to company for year, carried to earned surplus acount	$ 505,746.52

Keasbey & Mattison Co. H. H. Heckroth has been appointed Sales Manager in charge of the Power Products Sales of the Keasbey & Mattison Company; D. P. Osterhout has assumed the same duties with respect to Building Materials Sales for the Company, both reporting direct to A. S. Blagden, President.

Marshall Asbestos Co. T. R. Stenberg, author of the book "Brake Linings" which has been advertised in our pages, was recently made chief engineer of Marshall Asbestos Co., Troy, N. Y.

Mr. Stenberg is well known in the automotive industry because of his wide experience in engineering and sales work. During the last seven years he has devoted his time almost entirely to development and experimental work on brake linings and brake testing equipment.

Southern Friction Materials Company. At the annual Stockholders' and Directors' Meeting of the Southern Friction Fabric Company, of Charlotte, N. C., on March 12th the company changed its name to the Southern Friction Materials Company. The change in name was not accompanied by any change in ownership or management, but was effected to obtain a name more easily remembered and more descriptive of the Company's enlarged activities, which now include the handling of many friction materials of other than fabric nature.

At the same meeting the management announced the practical completion of its modernization program, which includes new machinery for nearly every operation, a new brick Treating Building, and improved office and warehousing facilities.

The following officers were elected: Howard Snow, President; Sidney Butz, Vice President; W. W. Dunkin, Secretary & Treasurer; Chas. E. Barnhardt, Chairman of the Board.

G. F. Stone, Sales Manager of Keasbey & Mattison Company, resigned from that position effective January 15, 1936, to enter other fields of endeavor. The Company will miss Mr. Stone's services and judgment. We, and we know his friends in the industry, wish him all the success possible in his new work.

The Asbestos Manufacturing Co., Huntington, Ind. According to newspaper reports, the 1935 net profit of this company was $132,684, compared with $76,524 last year.

Asbestos Corporation Limited at a meeting of Directors held on March 26 elected W. A. Arbuckle, C. A., to its Board of Directors. Mr. Arbuckle will represent certain English interests. Other directorates which Mr. Arbuckle holds include Loblaw Groceterias Co., Ltd., and Canada Paper Company.

AUTOMOBILE PRODUCTION

Automobile Production for February 1936 in the United States and Canada amounted to 304,232 motor vehicles, 290,964 of which were produced in the United States and 13,268 in Canada. This was somewhat lower than January, the total auto production for which was 380,554 in both countries.

During February 1935 total production was 353,781.

The change in date of shows is largely accountable for the variance in production as between the two years; in fact if we take the production figures for the first two months of the year, we find it evens up fairly well: production for the first two months of 1936 in United States and Canada was 684,786; for the first two months of 1935 it was 657,173.

ASBESTOS STOCK QUOTATIONS

			March 1936		
	Par.	Div.	Low	High	Last
Asbestos Corpn. (Com.) New V. T.	np	–	20¼	24½	22
Certainteed (Com.)	np	–	14⅞	19¼	18⅛
Certainteed (Pfd.)	100	7	81	93½	92½
Johns-Manville (Com.)	np	–	107	125½	109
Johns-Manville (Pfd.)	100	7	122	126¼	125⅞
Raybestos-Manhattan (Com.)	np	1.00	29¼	32	30½
Ruberoid (Com.)	np	1	90¾	109¼	100
Thermoid (Com.)	np	–	10	12⅜	10½
Thermoid (Pfd.)	100	–	60	68⅛	60

PATENTS

Gasket with Integral Molded Flange. No. 2,026,854. Granted on January 7 to Benjamin J. Victor, Oak Park, Ill. Assignor to Victor Mfg. & Gasket Company, Chicago, Ill. Application September 29, 1933. Serial No. 691,477.

A gasket comprising sheets of compressed impregnated asbestos, an intermediate metal reenforcing layer therebetween, integral projections in the metal layer penetrating the asbestos, the gasket having cylinder and water openings therein, a substantial portion of the gasket area being densified by compression and leaving ribs of less density and greater resiliency than the compressed portion about said openings.

Reenforce for Gaskets. No. 2,027,847. Granted on January 14, to John H. Victor, Evanston, and William A. Heinze, Chicago, Assignors to Victor Gasket & Mfg. Co., Chicago. Application January 17, 1934. Serial No. 706,930. Description upon request.

Clutch Facing. No. 2,028,031. Granted on January 14 to Gustave Waters, Middletown, Conn. Application October 24, 1934. Serial No. 749,730.

A clutch facing comprising a disc form of impregnated, multiply woven fabric having two ends adjacent one another and with one ply forming a friction face ply and another ply forming a rear face ply and a plurality of splicing members joining said adjacent ends, each splicing member including a body portion

engaging one of said face plies, a pair of leg portions extending thru said adjacent ends and a pair of clamping fingers engaging the other of said face plies, the portions of said splicing members engaging said friction face ply being inset substantially below the surface of said friction face.

Asphalt-Asbestos Mastic. No. 2,029,289. Granted on February 4 to Ulric B. Bray, Palos Verdes Estates, Lawton B. Beckwith, San Pedro, Frederick S. Scott, Los Angeles, Cal., Assignors to Union Oil Co. of California, Los Angeles. Application June 23, 1934. Serial No. 732,118.

A paste which is adapted to be readily trowelled on surfaces comprising a fibrous material, asphalt, water, a stabilizing agent, a de-emulsifying agent and a finely divided material which will adapt said mixture to be readily applied onto a surface by means of a trowel.

Gasket and Gasket Material. No. 2,029,302. Granted on February 4 to George T. Balfe, Detroit, Mich., assignor to Detroit Gasket and Mfg. Co., Detroit, Mich., original application Jan. 13, 1930, Serial No. 420,331. Now patent No. 1,776,140, dated September 16, 1930. Divided and this application September 15, 1930. Serial No. 482,098.

A gasket comprising co-extensive layers of perforate metal and interposed there between fibrous cushion material, the metal layers being provided with a multiplicity of closely compacted, inwardly punched projections adjacent the perforations in said sheets and embedded in the cushion material and/or the metal layers.

Insulating Material. No. 2,029,311. Granted on Feb. 4 to Nathaniel M. Elias, New York. Application September 26, 1930. Serial No. 484,700. A new article of manufacture comprising a mass of cellular insulating material having a specific gravity less than unity and metal serving as a binder for such insulating material and forming a coating or lining for the mass to constitute a finished surface for the article.

Re-enforced Insulating Roofing Slab. No. 2,029,352. Granted on February 4 to Charles J. Beckwith, Brooklyn, N. Y., assignor to Johns-Manville Corporation, New York City. Application April 15, 1932. Serial No. 605,367.

A panel comprising an inwardly disposed thermal insulating member, stone-like facing units juxtaposed on each side of the insulating member and spaced reenforcing bars extending between the inside surfaces of the facing units, the insulating member and also the reinforcing boards being secured to the facing units.

Acoustical Structure. No. 2,029,441. Granted on February 4 to John S. Parkinson, Somerville, N. J., assignor to Johns-Manville Corporation, New York. Application Dec. 12, 1933. Serial No. 701,962. Description upon request.

Insulation. No. 2,029,679. Granted on February 4, to Franz, Wm. Seving, Abel Bergquist and Karl Erie Olssen, Stockholm,

Sweden, assignors to Kooperative Forbundet Forening u. p. a., Stockholm, Sweden. Application Dec. 12, 1933, Serial No. 703,544. In Sweden June 3, 1933.

An insulation consisting of a material reflecting the rays of heat, comprising a plurality of superposed foils having the mechanical character of paper and individually consisting of a transparent mass of material having a low heat conductivity, the said mass forming each foil having particles of material possessing metallic lustre imbedded within the same.

Wicking. No. 2,029,994. Granted on February 4 to George S. Fabel, Trenton, N. J. Assignor to Southern Asbestos Co., Charlotte, N. C. Application February 3, 1933. Serial No. 655,102.

A wicking comprising a woven strip and wire extending in the direction of the warps along one face of the strip and connected to the strip by a strand of the strip.

Adhesive Composition. No. 2,030,633. Granted on February 11 to Harry E. Holcomb, Stratford, Conn. Assignor to Johns-Manville Corporation, New York. Application January 13, 1932. Description upon request.

Structural Assembly. No. 2,033,100. Granted on March 3 to George D. Kellogg, Pelham Manor, N. Y., assignor to Johns-Manville Corporation. Application October 20, 1932. Serial No. 638,738.

A structural assembly comprising in combination supports of the type of studs, pre-formed rigid panels, fastening means securing the panels to the supports and spring tightening elements co-acting with the fastening means and holding the panels against the supports.

Heat Insulating Composition. No. 2,033,106. Granted on March 3, to Arthur B. Cummins, Plainfield, N. J., assignor to Johns-Manville Corporation, New York City. Application July 27, 1932. Serial No. 625,191.

Described as a method of manufacturing heat insulating composition, adapted for use at elevated temperatures, comprising forming a slurry of a mixture of diatomaceous silica calcined in finely divided condition at a temperature of at least 1600° F., a comminuted inert material characterized by low density, and water, and forcing the slurry under pressure into a filtering mold whereby water is removed and a block is formed.

Fireproof Building Material. No. 2,034,522. Granted on March 17 to Emil C. Loetscher, Dubuque, Ia. Application February 19, 1934. Serial No. 711,996.

A composite fireproof building material composed of a mixture of asbestos fiber, sufficient of a resinous substance to combine with the asbestos fiber to form a hard, dense mass, and a quantity of a silicate adapted to become active at temperatures destructive to the resin as the binder for the material.

THIS AND THAT

The Annual Report of the Quebec Bureau of Mines for *1934* has just been issued by the Bureau of Mines, and devotes 22 of its 200 odd pages to the subject of asbestos.

The chapter on Asbestos was written by Eugene Larochelle, Inspector of Mines, and contains much interesting and valuable information. Besides various tables on the production, shipments, exports, etc., of Canada, the report gives tables showing imports of raw asbestos into various countries during 1933 and 1934 from all asbestos producing countries.. The tables cover imports into the United States, the United Kingdom, Belgium, Netherlands, Germany, Spain, Italy, Austria, and Czechoslovakia.

Our birthday list is being greatly enlarged. Birthday dates of officers of various Asbestos Companies will be welcomed.

If you know of some installation of insulation, or asbestos cement products which is out of the ordinary or particularly interesting either from the point of view of prominence or of peculiar or unusual conditions surrounding it, please write us about it and we will feature it in our pages. Such installations prove the worth of asbestos materials.

Gratitude for all good may be expressed in words, but no matter how well expressed, its significance is much deeper. Thankful actions speak louder than thankful words. The good is today so common that we are likely to take it for granted, and because the good seems to be our due, we fail to express our gratitude either in word or deed.

—The New Age.

Much futile mental strain is produced by the familiar belief that we can make our ventures succeed, and if any of them fail, we ourselves are responsible. If a man is foolish enough to believe that he can succeed in everything he undertakes, he subjects himself to an utterly needless strain. He must learn to do his best and then with a certain aloofness of spirit take what comes.—*James Gordon Gilkey.*